BRUHAT BENGALURU MAHANAGARA PALIKE

Name of Work :-Drilling of Borewell and providing pump motor and laying pipeline in Ward No.05 surrounding area Byatarayanapura Sub Division

								Estimate Cost Rs.		30000000
SL NO	DESCRIPTION OF WORK	UNIT	NO		L	B	D	QTY	RATE	AMOUNT
1	2	3	4	5	6	7	8	9	10	11
1	Carrying out geophysical survey Geophysical investigation of site for sinking bore weII for supplying drinking water to the habitation either through the Hand Pump. MWS or PWSS by vertical electrical sounding by adopting Venner or schlumberger's method, including reconnaissance survey of geological formation, Geophysical investigation of existing ground infecundity its quality & acceptability of the users indicating the location of site, recommended depth of casing pipe required to seal the top in consolidated formation of proper scatting of casing pipe ,depth of drilling required to cover full depth of auquifer propopsed to be tapped Proboabale yield and other information required including transporetation technical personal and labour etc PRE SR 2012-13 It no 9.4 page 47)									
		Each	34	1				34	1938.46	65907.64
2	Sinking of borewell of 165mm dia clear using super fast hydraulic rig of capacity 250 PSIG and above 900 CMF and above in all strata including over burden upto 20m, fixing of casing pipes, collars and cap with necessary welding, cutting and treading including transportation of rig and supporting vehicles, screw charges and cost of consumables, etc.. complete including yield testing at the final depth with a minimum working of compressor for one hour.(excluding cost of casing pipes, collars, caps etc.,)(PRED SR 2012-13 P-46 I-9 1to 9 1 6)									
	a) 0.00 to 50.00 mts	Rmt	34	1	50.00			1700.00	315.18	535806.00
	b) 50.00 to 100.00 mts	Rmt	34	1	50.00			1700.00	412.00	700400.00
	c) 100.00 to 150.00 mts	Rmt	34	1	50.00			1700.00	458.00	778600.00
	d) 150.00 to 200.00 mts	Rmt	34	1	50.00			1700.00	484.10	822970.00
	e) 200.00 to 250.00 mts	Rmt	34	1	50.00			1700.00	560.32	952544.00
	e) 250.00 to 300.00 mts	Rmt	34	1	50.00			1700.00	600.49	1020833.00
3	Supplying of ISI mark 175 mm nominal bore,plain end steel casing pipe grade of steel fee 410 of wall thickness 5.4mm thick confirming to IS 4270:2001 medium black ERW casing pipe of 5mm thick black electic resistance continous welded midle steel tube material confirming to IS 1387/1993 and manufactured from hat rolled steel skelp/ stripes in random length of 4 to 7 mtr both ends threaded confirming to lS 554/1985 one end fixed with a socket and the other and with a plastic protection end (including of all taxes) (Page No. III, Item No.84, PRED SR 2012-13									
	a) Casing pipe	Rmt	34	1	60.00			2040.00	1325.00	2703000.00
4	Providing 175mm MS Collar (Page No.III, Item No.86, PRED SR2012-13)									
		Each	34	10				340	150.00	51000.00
5	Providing 175 mm dia Bore cap CE (M) (Page No.III, Item No.85, PRED sR 2012-13									
		Each	34	1				34	100.00	3400.00
6	Providing and fixing 250 mm dia PVC(Casing Pipe)Page No. XXXI, Sl.. No.909) KPWD SR 2016-17									
		No	34	10				340	2600.00	884000.00
7	KSRB13-3.1: Providing and fixing in trenches galvanised I mild steel tubes (medium grade) 50mm dia nominal bore with all fittings (earth work in trenches to be measured and paid for separately) including cost of all materials, labour charges, HOM of equipments and testing complete as per specifications. (PWD SR 2016-17, P-90 It.13.15)									
		Mtr	34	1	280.00			9520.00	457.92	4359398.40
8	ATALANTA, SUGUNA, C.R.I, KIRLOSKAR and Other Equivalent Pumps17.5 hp/13kv(30 STAGE) (Page No.XXXXIII, Sl. No.34) SR2016-17									
		No	34	1				34	74300.00	2526200.00
9	supply and drawing 3 core flat sheathed submersible pump cable manufactured with celectrolytic grade copper with flexible copper conductor confirming to table 3 class 5 of I|S8130-1984 and virging grade PVC isulation and sheathed suitable for working voltage upto 1100 volts as per 1x3x4 sqmm of 56 stands 0.3mm dia group A(Page No.12, Item No.2.10.3), PW?D Electrical SR 2014-15 3CX4.0 sqmm									
		Mtr	68	1	280			19040	126.70	2412368.00

10	Providing and fixing in position 50 mm nominal bore non-return valve vertical typer of approved make including cost of all materials, labour and HOM of equipemnts with all leads complete as per spcifications (Page No.93, Item No.13.62)									
		Nos	34	1				34	1521.00	51714.00
11	supplying and fixing 50 mm GI Union (Page No.XXXIX,)KPWD SR 2016-17									
		Nos	34	1				34	223.70	7605.00
12	supplying and fixing 50 mm GI Elbow (Page No.XXXIX,)KPWD SR 2016-17									
		Nos	34	2				68	111.80	7602.00
13	supplying and fixing 50 mm GI Nipple (Page No.XXXIX,)KPWD SR 2016-17									
		Nos	34	2				68	104.30	7092.00
14	supplying and fixing 50 mm GI hose collar (Page No.XXXIX,)KPWD SR 2016-17									
		Nos	34	2				68	103.00	7004.00
15	Fabricating supplying and mounting MS box made out 14SWG uitable for floor wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrengements, with suitalbe size clamps with necessary calbe eintry pipe with gland and bo should be finished with 2 coats of red oxide primer paint and finally finished with approved colour enameled metal paint etc., complete (Page No. 49, Item No.6.40.1) PWD Electrical SR 2014-15									
		Sq.Cm	34	2	100	100		680000	0.37	251600.00
16	Supplying and fixing angle iron frame work fabricated out of MS angle iron., and M.S flat., with bolts, washers etc., and painted with 2 coats of red oxide and then tow coats of approved paint (Page No.49, Sl. No.6.39.2) 50x50x6mm electrical sr 2014-15									
		Nos	34	1				34	338.00	11492.00
17	supplying of TPST with rewireable porcelain channels in SM encloser. Made out of 14 SWG powder coated paint of approved colour. 32 amtps(Page No.44, Sl.No.6.5.1) electrical sr 2014-15 32 amps P.30 Item No.1(b)									
		Nos	34	1				34	1868.00	63512.00
18	Supplying and fixing 20"x20"X2.5" polished wood board made up not less than 15 mmm thick plank with front plak one end provided for olding at other end fixing the same of the value using through bolts and nuts (PN.44, Sl. No.6.6.6) Electrical sR 2014--15									
		Nos	34	1				34	302.00	10268.00
19	supplying and fixing LED type Panedl board indicating lamp with required colour suitable for 220 v AC 50 HZ 12/24 DC(Page No.48, Sl. No.6.36)									
		Nos	34					34	442.00	15028.00
20	Supplying fully automatic Star delta starter unit push button type with suitable wires 3 Contractors and adjustable thermal timer mounted on a common base plate held in steel enclosure for use on 400 /440 volts 3 phase and wired after fixing to the wooden board for motor. Upto 12.5 HP (Page No.44, Sl. no.6.2.1)									
		Nos	34	1				34	6583.00	223822.00
21	supplying and fixing single phase preventor using Necessary wires over an existing panel board suitable for motor up to 20 HP capacities(Page No.44, Sl.No.6.3)									
		Nos	34	1				34	768.00	26112.00
22	Wiring for lighting/ power circuit using one of FRLS PVC insulated 1100V grade multistrand copper with low conductor resistance single core wire in open or concealed system of wiring with specified IS 694:1990 all confirming to GTP of Group-A.4 Sqmm (Page No.6, Sl. No.2.5.4) Electrical SR 2014-15)									
		Nos	34	20				680	42.10	28628.00
23	Supplying, fixing and wiring heavy duty low voltage capacitors confirming to IS 2834 phase, 400/440 volts grrudle, for power factor improvement of rotating machiner(Page No.48, Sl. No.6.35)Electrical SR 2014-15									
		Rmt	34	1	4.00			136.00	414.00	56304.00
24	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' typer curve, indicateor On/Off energy cross-3 with shord circuti breaking capacity of 10K and complete wiring as required confiming to IEC 60898, 40-63 AMpS TPN (Page No.47, Sl. no.6.16.6) Electrical sR 2014-15									

		Nos	34	1				34	1936.00	65824.00
25	upplying and fixing wiring earth electrode for gounding condiuts. I.C cutouts and other equipements of the meter board using 40 mm dia 2.90 mm thick GI Pipe 2.5 mtr long buried in a pit... the pit should be filled with equal proportion of salt and charcoal 150 mm all round the pipe to complete depth. the connection from the pipe to the conditu etc., is to be established throught GI wire of size as per ISI specification 7.3.3 of IS 732 using 12 mm dia bolts, nuts, washers and check nuts etc., the pipe shall have 16 throught holes o f122 mm dia (Page No.55, Sl. no.7.1) Electical sR 2014-15									
		Nos	34	1				34	2727.00	92718.00
26	supplying and fixing class-A (Medium duty) -GI pipe wall thickness not less than 3.25mm on pole/wall/Drain crossing with necessary clamping arrangements for UG Cable of 1.1 KV class 40mm (PWD Ele SR 2014-15, P-62, It-7.12.1)									
		Nos	34	5				170	345.00	58650.00
27	supplying of 1.1 KV Ltug cable having alluminium conductor PvC insulated extruded inner shealthed, galvanized, steel strip (except 2C X10Sq.mm wire arnoured) confirming to IS-3975 :1990 (No.of strip indicated in GTP) * extruded PVC outer sheathed armored cable with specified IS-1554 Part1:1988 & confirming to GTP of Group-A.4 core 16sqmm (Page No.55, Sl.No.7.4.4) electrical Sr2014-15									
		Nos	34	25				850	140.40	119340.00
28	Labour charges for laying of 1.1 KV Class UG cable in existing trech GI Pipe stone ware pipe/on wall /on poles as required. In existing trech/duct.6sqmmto 16sqmm (Page No.61, Sl.No.7.8.1) electrical SR 2014-15									
		Mts	34	1	25			850	10.80	9180.00
29	Digging of trenches of 0.6X0.50 m wide refilling the trench to the required ground level and consolidating etc., complete (Page No.61, Sl>No.7.9.2) hard soil electrical SR2014-15									
		Mts	34	1	30			1020	106.00	108120.00
30	Supplying and fixing LT cast iron pot heads suitable for 1.1 KV class UG cable filled with necessary bitumin insulating compound complete the terminals, clamps, bots nuts and washers etc., for 16 sqmm (Page No.62, SL.No.7.13.2) Electrical Sr 2014-15									
		Nos	34	1				34	280.00	9520.00
31	Supplying and fixing of procelinfuse channel with cutouts on existing wooden/panel using necessary nuts, bolts and washers, 63 Amps(Page No.44, Sl. nO.6.7.3) Electrical SR 2014-15									
		Nos	34	6				204	234.00	47736.00
	Pipeline									
32	Earth work excavation for foundation of buildings water supply sanitary lines and electrical conduits either in pits or in trenches 1.5m and aboe in width, in hard soil not exceeding, 1.5m in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50m. afer breaking of clods complete as per specificatiosn(Page No. 5, Item No.2.4(KPWD SR 2016-17									
	Basic Rate	283.00								
	Area Weightage @ 6%	16.98								
	total	299.98								
		cum	34	1	238.00	0.6	0.3	1456.56	299.98	436938.00
33	KSRB13-10.4 : Providing and fixing to wall, ceiling and floor unplasticised PVC pipes 10.00 kgf/sq.cm working pressure 32mm outside diameter chemp plast / Wavin or equivalent make with pipe fittings, wall clips, making good the wall, ceiling and floor, including cost of all materials, labour charges, HOM of equipments and testing complete as per specifications. Specification No.KBS 13.2.15.4 / 13.9 (PWD SR 2016-17, P-94 It -13.77)									
	Basic Rate	121.00								
	Area Weightage @ 6%	7.26								
	total	128.26								
	50mm outer dia	Mts	34	1	238.00			8092.00		
							Total	8092.00	128.26	1037879.00
34	Refilling available erath around pipelines calbes in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50 m and lift upto 1.5m including cost of all labour complete as per specifications allow 60% of rate considered under Item (Page No.6, Item No.2.11) KPWD SR 2016-17									
	Basic Rate	76.00								
	Area Weightage @ 6%	4.56								

	total	80.56								
	60% of qty vide Item No.32		cum					873.94	80.56	70404.00
35	KSRB 4-1.3 ; Providing and laying in position plain cement concrete of mix 1:4:8 with OPC cement @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.85 cum and fine aggregtes @ 0.57cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, inciuding cost of all materials, labour, HOM of machinery, curing complete as per specifications.(Page No.12, Item No.4.3) KPWD SR 2016-17									
	Basic Rate	4867.00								
	Area Weightage @ 6%	292.02								
	total	5159.02								
		cum	34	1	238.00	0.6	0.15	728.28	5159.02	3757211.00
36	Cement concrete pavement.Construction of un-reinforced plain cement concrete pavement, thickness as per design, over a prepared sub base with OPC cement or any other type as per clause 1051.2.2 design mix M20/M30 , with 25mm and down size graded granite metal coarse aggregates and fine aggregtes , with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008 , mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints including groove cutting charges, joint filler, separation membrane, selant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades as per drawing complete as per specifications. - M30 (at 360Kg per cum coarse aggregate @ 0.69cum and fine aggregate @ 0.46cum).(Page No.177, Item No.22.6.1) KPWD SR 2016-17									
	Basic Rate	5866.00								
	Area Weightage @ 6%	351.96								
	total	6217.96								
		cum	34	1	238.00	0.6	0.15	728.28	6217.96	4528415.00
37	Loading and unloading of stone boulder/stone aggregates/sand/.kanker/moorum. KSRRB M100-1:Placing tipper at loading point, loading with front end loader, dumping, turning for return trip, excluding time for haulage and return trip complete as per specification MORTH Chapter 1 (PWD SR 2015-16, P-133, It.17.1)									
	Basic Rate	68.00								
	Conveying for 10Km	32.00								
	Sub total	100.00								
	Balance Qty Vide Item NO.(32-34)		Cum					582.62		
								582.62	100.00	58262.00
									TOTAL	28984407.04
38	BESCOM Deposit charges and misscellanesous									
		Each	34	1				34	12000.00	408000.00
39	Consultancy Charges for the preparation of DPR								LS	300000.00
40	Project Management Consultancy Charges								LS	300000.00
41	Miscellaneous & Rounding off									7593.00
									Total Rs.	**30000000**

Administrative Approval
Accorded For Rs. 300 lakhs
Head of A/C P-3112
CER NO :185/17-18 Dt: 15/3/18

E.E. (Project)

CERTIFICATE:

1. The Above estimate has been prepared as per PWD Bangalore Circle schedule of rates 2016-17 Electrical SR 2014-15 and BWSSB SR 2014-15
2. Certified that the work spot has been ispected by me & prepared the estimate in most economical way of executing the work
3. Certified that the work is necessary

Technical Sanction
Accorded For 300.00 lakhs Rs.
Head of A/C P.3112
CER NO : 386 Dt: 28/11/17

AE

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

TA CE (YNK)

Executive Engineer
Project Division
Yelahanka Zone
Bangalore
28/11